

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of manufacturing a semiconductor device including a gallium nitride related semiconductor material, the method comprising:
preparing a substrate having a surface that is a gallium nitride related semiconductor material;
~~decomposing a nitrogen-containing gas in a catalytic reaction, to produce~~ producing atomic nitrogen by passing a nitrogen-containing gas across a heated catalytic member;
contacting the surface with the atomic nitrogen to nitride the surface; and
forming, on the surface, a gate electrode and source and drain electrodes on opposite sides of the gate electrode.
2. (Currently Amended) The method according to claim 1, including,
in the nitriding, selectively nitriding the surface, and
forming ~~the gate and~~ source, and drain electrodes on the surface where selectively nitrified.
3. (Previously Presented) The method according to claim 1, including, in the nitriding, forming an aluminum layer on the surface and nitriding a surface of the aluminum layer .
4. (Previously Presented) A method of manufacturing a semiconductor device including a gallium nitride related semiconductor material, the method comprising:
preparing a substrate having a surface that is a gallium nitride related semiconductor material;
forming, on the surface, a gate electrode and source and drain electrodes on opposite sides of the gate electrode;
decomposing a nitrogen-containing gas in a catalytic reaction to produce atomic nitrogen; and

contacting the surface, at an area between the source electrode and the gate electrode and at an area between the drain electrode and the gate electrode, with the atomic nitrogen, to nitride the surface.

5. (Previously Presented) The method according to claim 4, including, in the nitriding, forming an aluminum layer on the surface and nitriding a surface of the aluminum layer .

6. (Previously Presented) A method of manufacturing a semiconductor device including a gallium nitride related semiconductor material, the method comprising:

preparing a substrate having a surface that is a gallium nitride related semiconductor material;

forming, on the surface, a gate electrode and source and drain electrodes on opposite sides of the gate electrode;

forming one of an insulating film and an aluminum film covering all of the surface and having a thickness in a range of 10 to 50 Angstroms;

decomposing a nitrogen-containing gas in a catalytic reaction to produce atomic nitrogen; and

contacting the surface, at an area between the source electrode and the gate electrode and at an area between the drain electrode and the gate electrode, with the atomic nitrogen, nitriding the surface.

7. (Previously Presented) The method according to Claim 6, wherein, in the nitriding, the atomic nitrogen passes through the insulating or aluminum film and contacts the surface so the surface is nitrified.

8. (New) The method according to Claim 4, including decomposing the nitrogen-containing gas into atomic nitrogen by passing the nitrogen-containing gas across a heated catalytic member.

9. (New) The method according to Claim 6, including decomposing the nitrogen-containing gas into atomic nitrogen by passing the nitrogen-containing gas across a heated catalytic member.